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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

Complete if Known						
Application Number	09/519,935					
Filing Date	Mar. 7, 2000					
First Named Inventor	Tom Wucherer					
Group Art Unit	2171					
Examiner Name	Al-Hashemi, Sana A.					
Attorney Docket Number	TRIRG-08331US0					

				U.S. PATENT DOCU	JMENTS	
Examiner Initials*	Cite No.1	U.S. Patent Number	Document Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Cotumns, Lines, Where Relevant Passages or Relevant Figures Appear
		4,799,156		Shavit et al.	01-17-1989	
		4,870,576		Tornetta	09-26-1989	
		4,972,318		Brown et al.	11-20-1990	
		4,992,940		Dworkin	02-12-1991	
		5,528,490		Hill	06-18-1996	
		5,666,493		Wojcik et al.	09-09-1997	DEC
		5,694,551		Doyle et al.	12-02-1997	MECENTE
		5,710,887		Chelliah et al.	01-20-1998	LIVED
		5,715,314		Pavne et al.	02-03-1998	SEDO
		5,742,931		Spiegelhoff et al.	04-21-1998	021 0 4 2002
		5,754,850		Janssen	05-19-1998	Technology Center 2100
		5,758,327		Gardner et al.	05-26-1998	Center 2100
		5.758.328		Giovannoli	05-26-1998	27.2700
		5.761.674		Ito	06-02-1998	
		5.765.142		Allred et al.	06-09-1998	
		5,768,142		Jacobs	06-16-1998	
		5,842,178		Giovannoli	11-24-1998	
		5,847,971		Ladner et al.	12-08-1998	
		5,873,076		Barr et al.	02-16-1999	
		5,875,110		Jacobs	02-23-1999	

				FOR	EIGN PATENT DOCUMEN	TS		
Examiner Initials	Cite No.1	Office	Foreign Patent Doo 3 Number ⁴	ument Kind Code ⁵ (<i>if known</i>)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	J. Jē
			WO 01 63449	Α	Empriva Inc.	08-30-2001		
			WO 01 67279	Α	Marnell Corrao Assoc.	09-13-2001		
			JP 07271569	Α	Hitachi Software	10-20-1995		T
			WO 98 43155	Α	MCI Comm. Corp.	10-01-1998		
			EP 0 959 421	Α	Autodesk Inc.	11-24-1999		\bot
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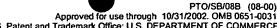
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known **Application Number** 09/519,935 **Filing Date** Mar. 7, 2000 **First Named Inventor** Tom Wucherer Group Art Unit 2171 **Examiner Name** Al-Hashemi, Sana A Attorney Docket Number TRIRG-08331US0

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Examiner Cite item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), Initials publisher, city and/or country where published. http://www.fedcenter.com printed 5/22/2000 http://www.rent.net_printed 5/22/2000 RECEIVED http://www.apartments.com printed 5/22/2000 SEP 0 4 2002 Technology Center 2100 http://www.us.buy.com printed 5/22/2000 http://www.designmanager.com printed 3/6/2002 THOMAS A. WUCHERER, "An Architectural Design Program Computer Data Base" December 1987 TOM FIELD, "Reengineering the Engineering Business", CIO Magazine Feb. 1, 1998 P. KRISTOFF, et al., "The Process Specification System for MMST", IEEE TRANSACTIONS OF SEMICONDUCTOR MANUFACTURING, vol. 8, no. 3, Aug. 1995, pp. 262-271 J. MCGEE, et al., "The MMST Computer-Integrated Manufacturing System Framework", IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING, vol. 7, no. 2, May 1994, pp.107-116 T-K PENG, et al., "A Step Toward STEP-Compatible Engineering Data Management: The Data Models of Product Structure And Engineering Changes", ROBOTICS AND COMPUTER INTEGRAT MANUFACTURING, vol. 14, no. 2, April 1, 1998, pp. 89-109 HORI, et al., "OpenMES: Scalable Manufacturing Execution Framework Based On Distributed Object Computing", SYSTEMS, MAN AND CYBERNETICS, 1999, IEEE SMC '99 Conf. Proceedings 1999 IEEE Int'l Conf., Tokyo, Japan, Oct. 12-15, 1999, pp. 398-403

Examiner		Date	
Signature	•	Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Co	omplete if Known
Application Number	09/519,935
Filing Date	Mar. 7, 2000
First Named Inventor	Tom Wucherer
Group Art Unit	2171
Examiner Name	Al-Hashemi, Sana A.
Attorney Docket Number	TRIRG-08331US0

				U.S. PATENT DOCI	JMENTS	
Examiner Initials	Cite No.1	U.S. Patent I	Cocument Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		5,895,454		Harrington	04-20-1999	
		5,899,980		Wilf et al.	05-04-1999	
		5,903,877		Berkowitz et al.	05-11-1999	
		5,926,798		Carter	07-20-1999	
		5,932,459		Sittinger et al.	08-03-1999	
		5,946,665		Suzuki et al.	08-31-1999	
		5,950,173		Perkowski	. 09-07-1999	
		5,956,709	•	Xue	09-21-1999	
		5,970,472		Allsop et al.	10-19-1999	RECEIVE
		5,970,475	ļ	Barnes et al.	10-19-1999	ILUCIVE
		5,974,395		Bellini et al.	10-26-1999	0.5
		5,999,915		Nahan et al.	12-07-1999	SEP 0 4 2002
	,	6.002.855		Ladner et al.	12-14-1999	-
		6.009.413		Webber et al.	12-28-1999	Technology Center 2
		6.014.644		Erickson	01-11-2000	37 00/16/ Z
ν		6,026,376		Kenney	02-15-2000	
		6,047,290		Kennedy et al.	04-04-2000	
	·	6,064,982		Puri	05-16-2000	
		4,700,318		Ockman	10-13-1987	
		5,189,606		Burns et al.	02-23-1993	·

				FORE	IGN PATENT DOCUMENT	rs	·	
	Cite No.1		Foreign Patent Do	Kind Code ⁵	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 5

Co	omplete if Known	
Application Number	09/519,935	
Filing Date	Mar. 7, 2000	
First Named Inventor	Tom Wucherer	
Group Art Unit	2171	
Examiner Name	Al-Hashemi, Sana A.	
Attorney Docket Number	TRIRG-08331US0	

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				U.S. PATENT DOCL	JMENTS	
Examiner Initials	Cite No.1	I Number .	ment d Code ² mown)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		5,303,144	T	Kawashima et al.	04-12-1994	
		5,526,520		Krause	06-11-1996	
		5,655,118		Heindel et al.	08-05-1997	
		5,668,736	Т	Douglas et al.	09-16-1997	
		5,689,705		Fino et al.	11-18-1997	
		5,755,072		Lingafelter	05-26-1998	
		5,761,674		Ito	06-02-1998	
		5,793,632		Fad et al.	08-11-1998	
		5,799,286		Morgan et al.	08-25-1998	
		5,799,318		Cardinal et al.	08-25-1998	
	_	5,815,829		Zargar	09-29-1998	RECEIVED
		5,826,252		Wolters, Jr., et al.	10-20-1998	TIEOLIVE L
		5.893.082		McCormick	04-06-1999	CED 0 4 0000
		5.924.094		Sutter	07-13-1999	SEP 0 4 2002
		5.950.206		Krause	09-07-1999	Tool
		5,970,490		Morgenstern	10-19-1999	Technology Center 21
		5,983,010		Murdock et al.	11-09-1999	
		6,012,066		Discount et al.	01-04-2000	
		6,029,174		Sprenger et al.	02-22-2000	
		6,037,945		Loveland	03-14-2000	

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Examiner Initials*	Cite No.1	Office ³	oreign Patent Do	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T6
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Application Number	09/519,935	
Filing Date	Mar. 7, 2000	
First Named Inventor	Tom Wucherer	
Group Art Unit	2171	
Examiner Name	Al-Hashemi, Sana A.	
Attorney Docket Number	TRIRG-08331US0	

AUG 2 9 2002 PADEN **U.S. PATENT DOCUMENTS** Pages, Columns, Lines, U.S. Patent Document Date of Publication of Name of Patentee or Applicant Where Relevant Cite Kind Code Cited Document of Cited Document Passages or Relevant No.1 Number MM-DD-YYYY (if known) Figures Appear 6,038,547 Casto 03-14-2000 6,035,293 03-07-2000 Lantz et al.

	FOREIGN PATENT DOCUMENTS							
Examiner	Cite No.1	Foreign Patent Document			Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	
Initials		Office ³	Number ⁴	Kind Code ⁵ (<i>if known</i>)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T ⁶
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